



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,708	01/27/2004	Deborah A. Klinkert	20067.0021US01	2573
52835	7590	09/17/2007		
HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
			EXAMINER	
			EDWARDS, LOREN C	
			ART UNIT	PAPER NUMBER
			3748	
			MAIL DATE	DELIVERY MODE
			09/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,708

Applicant(s)

KLINKERT ET AL.

Examiner

Loren C. Edwards

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/27/04 and 6/15/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. An Applicant's Amendment filed on 8/29/07 has been entered. Claims 2, 5, 9, and 16 have been canceled; claims 1, 3, 4, 6-8, 10-15, and 17-20 have been amended; and claim 21 has been added. Overall, claims 1, 3, 4, 6-8, 10-15, and 17-21 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

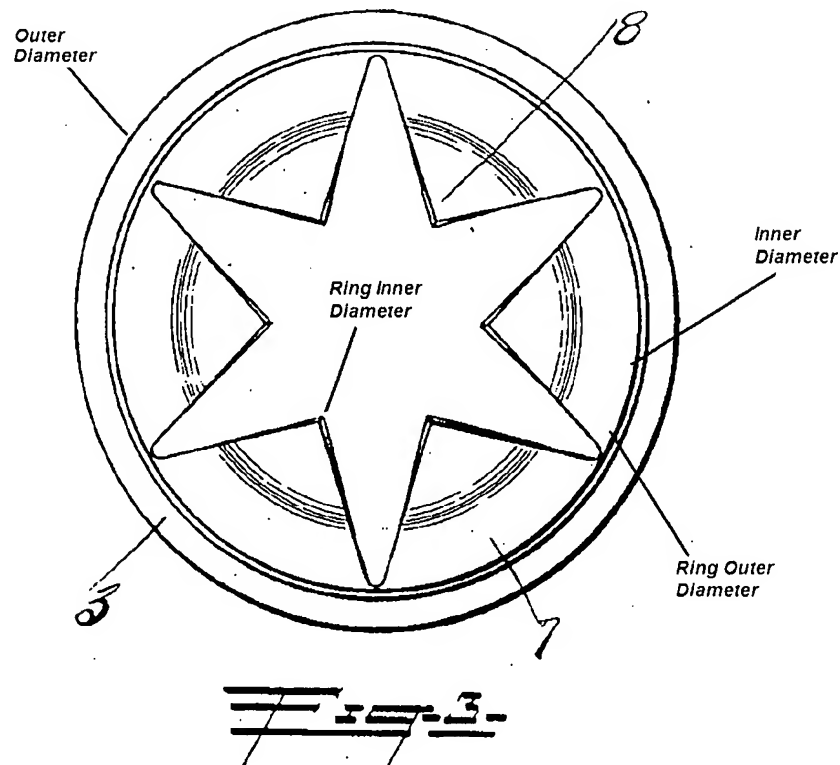
A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 6, 11-13, and 21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pribil (U.S. 1,530,324). Pribil discloses an exhaust assembly for a marine genset, the exhaust assembly comprising: an exhaust manifold (Fig. 1, No. 2) configured to emit cooling water and exhaust gases (inherent to hydrocarbon burning internal combustion engine exhaust); a sound-dampening device (Fig. 1, No. 3) configured to be coupled between the exhaust manifold (Fig. 1, No. 2) and a muffler (Fig. 1, No. 11 – connectable to anything), the sound-dampening device including a tubular member (Fig. 1, No. 3) having an inner diameter (Modified Fig. 3, Inner Diameter) and two or more rings (Fig. 2, No. 7) located on the inner diameter of the tubular member; each ring having an inner surface (Figs. 3 and 4) exposing directly to an exhaust gas passageway in the tubular member, the rings being configured to provide constriction of the passageway which causes mixing of the cooling water with

Art Unit: 3748

the exhaust gases to reduce noise generated by the combustion engine (Col. 1, Lines 9-19).



Modified Fig. 3 – Added reference notations

4. With regards to claim 3, Pribil discloses the exhaust assembly of claim 1, as described above, and further wherein the tubular member is flexible (Fig. 1, No. 3) and is configured to be connected between the exhaust manifold and directly to the muffler, the flexible tubular member having an inner diameter (Modified Fig. 3, Inner Diameter), and the two or more rings are located on the inner diameter of the flexible tubular member (Fig. 3, Nos. 3 and 7), each ring having an outer diameter (Modified Fig. 3, Ring Outer Diameter) the same as the inner diameter of the flexible tubular member and

Art Unit: 3748

an inner diameter (Modified Fig. 3, Ring Inner Diameter) smaller than the inner diameter of the flexible tubular member.

5. With regards to claim 4, Pribil discloses the exhaust assembly of claim 1, as described above, and further wherein the tubular member (Fig. 1, No. 3) is rigid (Fig. 1, No. 3 – Diameter of tube is rigid) and is connectable between the exhaust manifold (Fig. 1, No. 2) and an exhaust hose connected to the muffler (Fig. 1, No. 11 – connectable to anything), the rigid tube member including an inner diameter (Modified Fig. 3, Inner Diameter), the inner diameter having the at least two rings mounted thereto (Fig. 2, No. 8), each ring having an outer diameter (Modified Fig. 3, Ring Outer Diameter) the same as the inner diameter of the rigid tubular member and an inner diameter (Modified Fig. 3, Ring Inner Diameter) smaller than the inner diameter of the rigid tubular member.

6. With regards to claim 6, Pribil discloses an exhaust apparatus for a marine genset comprising: a flexible exhaust tubular member (Fig. 1, No. 3) configured to be connected between an exhaust manifold (Fig. 1, no. 2) of a combustion engine (Fig. 1, No. 1) and a muffler (Fig. 1, No. 11 – connectable to anything), the flexible exhaust tubular member having an inner diameter (Modified Fig. 3, Inner Diameter); and two or more rings (Fig. 2, No. 7) located on the inner diameter of the flexible exhaust tubular member, each having an outer diameter (Modified Fig. 3, Ring Outer Diameter) the same as the inner diameter of the flexible exhaust tubular member and an inner surface having an inner diameter (Modified Fig. 3, Ring Inner Diameter) smaller than the inner diameter of the flexible exhaust tubular member, each of the inner surfaces of the rings exposing directly to an exhaust gas passageway in the exhaust tubular member

Art Unit: 3748

(Figures 1 and 2), the rings being configured to provide constriction of the passageway which causes mixing of the cooling water with the exhaust gas to reduce noise generated by the combustion engine (Col. 1, Lines 9-19).

7. With regards to claim 11, Pribil discloses an exhaust apparatus for a marine genset, comprising: a rigid tubular member (Fig. 1, No. 3 – Diameter of tube is rigid) having a first end (Fig. 1, No. 3 – upstream end) connectable to an exhaust outlet of a combustion engine (Fig. 1, Nos. 1 and 2), the tubular member including an inner diameter (Modified Fig. 3, Inner Diameter), the inner diameter having at least two rings (Fig. 2, No. 7) mounted thereto, each ring having an outer diameter (Modified Fig. 3, Ring Outer Diameter) the same as the inner diameter of the tubular member and an inner diameter (Modified Fig. 3, Ring Inner Diameter) smaller than the inner diameter of the tubular member, each ring having an inner surface exposing directly to an exhaust gas passageway in the tubular member (Figures 1 and 2), the rings being configured to provide constriction of the passageway which causes mixing of the cooling water with the exhaust gases to reduce noise generated by the combustion engine (Col. 1, Lines 9-19).

8. With regards to claim 12, Pribil discloses the exhaust apparatus of claim 11, as described above, and further wherein the tubular member is a rigid metal pipe (Col. 2, Line 79).

9. With regards to claim 13, Pribil discloses the exhaust apparatus of claim 11, as described above, and further wherein a second end of the tubular member is

Art Unit: 3748

connectable to a flexible marine exhaust hose (Fig. 1, No. 11 – connectable to anything).

10. With regards to claim 21, Pribil discloses the exhaust assembly of claim 1, as described above, and further wherein the two or more rings located on the inner diameter of the tubular member, comprises two rings located at opposite ends of the tubular member (Fig. 2, No. 7 – rings located throughout pipe).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pribil in view of Kazokas (U.S. 3,061,416). Pribil discloses an exhaust system for a marine genset, the exhaust assembly comprising: a combustion engine having an exhaust to emit cooling water and exhaust gases (Pribil; Fig. 1, Nos. 1 and 2); a water separator (Pribil; Fig. 1, No. 3); an exhaust hose (Pribil; Fig. 1, No. 11); and an exhaust tubular

member (Pribil; Fig. 1, No. 3) between the exhaust and the exhaust hose, the tubular member having an inner diameter (Pribil; Modified Fig. 3, Inner Diameter) and two or more rings (Pribil; Fig. 2, No. 7) located on the inner diameter, each ring having an outer diameter (Pribil; Modified Fig. 3, Ring Outer Diameter) the same as the inner diameter of the tubular member and an inner diameter (Pribil; Modified Fig. 3, Inner Diameter) smaller than the inner diameter of the tubular member, each ring having an inner surface exposing directly to an exhaust gas passageway in the tubular member (Pribil; Figures 1 and 2), the rings being configured to provide constriction of the passageway which causes mixing of the cooling water with the exhaust gases to reduce noise generated by the combustion engine (Pribil; Col. 1, Lines 9-19). Pribil fails to specifically describe a muffler. Kazokas discloses a muffler for an internal combustion engine application (Kazokas; Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to attach the muffler of Kazokas to the exhaust hose of Pribil for the advantage of completely oxidizing the exhaust gases before passing them to the atmosphere (Kazokas; Col. 1, Lines 9-12).

14. Claims 7, 14, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pribil in view of design choice. Pribil discloses the apparatus of claims 3, 4, 6, 11, and 17, as described above, but does not expressly disclose wherein the two or more rings are evenly spaced about 4 ½ inches apart from each other along a length of the flexible tubular member. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the rings spaced about 4 ½ inches apart because Applicant has not disclosed that

Art Unit: 3748

the spacing provides an advantage, is used for a particular purpose, or solves a stated problem. Furthermore, the scale of the exhaust tubular member of Pribil would ultimately determine the spacing of the rings and, depending on the distance that needed to be covered, a spacing of 4 ½ inches would be well within the reasonable spacing as shown by Figures 1 and 2 of Pribil. Therefore, it would have been an obvious matter of design choice to modify Pribil to obtain the invention as specified in claims 7, 14, and 18-20.

15. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pribil in view of design choice. Pribil discloses the apparatus of claim 6, as described above, but does not expressly disclose wherein the exhaust tubular member has an outside diameter of about 2 inches or wherein the length is 6 feet or less. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the exhaust tubular member 2 inches in diameter or 6 feet in length because Applicant has not disclosed that the diameter or length provide an advantage, are used for a particular purpose, or solve a stated problem. Furthermore, the length and diameter of exhaust tubing are common considerations in the design of automotive exhausts and the claimed dimensions are very typical in the art. Therefore, it would have been an obvious matter of design choice to modify Pribil to obtain the invention as specified in claims 8 and 10.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pribil in view of design choice. Pribil discloses the apparatus of claim 11, as described above, but fails to expressly disclose the tubular member and the rings being made of stainless

Art Unit: 3748

steal. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the tubular member and rings out of stainless steel because Applicant has not disclosed that the stainless steel material provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well being made of stainless steel because stainless steel is commonly used in internal combustion engine exhaust applications. Therefore, it would have been an obvious matter of design choice to modify Bishop to obtain the invention as specified in claim 15.

Response to Arguments

17. Applicant's arguments filed 8/29/07 have been fully considered but they are not persuasive.

18. Applicant has argued that Pribil fails to disclose a sound-dampening device coupled between the exhaust manifold and the muffler. The examiner respectfully disagrees. Pribil discloses a sound-dampening device (Fig. 1, No. 3) that is attached to an internal combustion engine and has a free end (Fig. 1, No. 1) that is configured to have a muffler attached to. The phrase "configured to be" does not require that a muffler be attached, just that it is possible to attach a muffler.

19. Applicant has argued that Pribil does not disclose a sound-dampening device having a tubular member with two or more rings, where the rings are configured to provide constriction of the passageway to cause mixing of cooling water with exhaust gases so as to reduce noise generated by the combustion engine. The examiner

Art Unit: 3748

respectfully disagrees. The rings of Pribil (Fig. 2, No. 7) are in the tubular member (Fig. 1, No. 3). These rings are exposed to ambient air on their outside and will be cooler than the exhaust gases flowing through them. Water is a product of combustion and this water vapor will condense on the cool rings.

20. Applicant has argued that Pribil does not disclose a tubular member configured to cause mixing of cooling water with exhaust gases to reduce noise generated by the combustion engine. The examiner argues that the rings of Pribil (Fig. 2, No. 7) will cause condensation to occur thereon and the flow of exhaust gas around them will cause the mixing. In response to the muffling of the exhaust gas being caused by this mixing of water with the exhaust gas, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 3748

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Loren C. Edwards whose telephone number is (571) 272-2756. The examiner can normally be reached on M-TH 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Loren Edwards
(571) 272-2756



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 5700